



EDMUND G. BROWN JR.
GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

Division of Drinking Water

January 11, 2017

Williams Grove State Park
PO Box 2006
Eureka, CA 95503

Certified Mail
7012 3460 0003 1112 8472

Attn: Victor Bjelajac, North Coast Redwoods District Superintendent

Subject: Citation No. 01_01_17C_003, Failure to Comply With Filter Effluent Turbidity Performance Standards, Williams Grove, PWS #1210315, Weott, Humboldt County

Enclosed is a citation issued to Williams Grove public water system for failure to comply with filter effluent turbidity performance standards in May, June, July, August, September, and October of 2016. The citation specifies action to be taken by State Park staff to achieve compliance and avoid future civil penalties.

Section 116577 of the California Safe Drinking Water Act provides for our department to be reimbursed by the public water system for costs incurred for preparing and issuing an enforcement action to that system. Therefore, your water system will be billed for the preparation and issuance of this order. Our costs are approximately \$163 per hour. At this time we have spent approximately 2 hours on enforcement activities associated with this violation. You will receive a bill for these costs from our Fee Billing Unit in Sacramento.

In addition, it is necessary that you provide public notification of the referenced violations, and provide our office with certification of public notification.

If you have any questions regarding this matter, please contact Ronnean Lund of my staff at (530) 224-6505 or me at (530) 224-4875.

Sincerely,

Barry Sutter, P.E.
Klamath District Engineer
Division of Drinking Water

Enclosures

cc Richard Hinrichs, Chief, DDW, Northern California Section, Redding
Humboldt County Environmental Health

1 **STATE OF CALIFORNIA**
2 **STATE WATER RESOURCES CONTROL BOARD**
3 **DIVISION OF DRINKING WATER**
4

5 Date: January 11, 2017
6

7 To: Williams Grove State Park
8 PO Box 2006
9 Eureka, CA 95503
10

11 Attn: Victor Bjelajac, North Coast Redwoods District Superintendent
12

13 CITATION No. 01_01_17C_003
14

15 FOR
16

17 FAILURE TO COMPLY WITH TURBIDITY PERFORMANCE STANDARDS
18 SURFACE WATER TREATMENT REGULATIONS
19

20 Section 64653
21

22 Title 22, California Code of Regulations
23

24 Public Water System: Williams Grove State Park
25

26 Public Water System No.: 1210315
27

28 Section 116650 of the California Health and Safety Code authorizes the issuance of a
29 citation to a public water system for violation of the California Safe Drinking Water Act
30 (Health and Safety Code, Division 104, Part 12, Chapter 4, commencing with Section
31 116270) (hereinafter "California SDWA"), or any regulation, standard, permit or order
32 issued or adopted thereunder.

1 The State Water Resources Control Board (hereinafter "State Board"), acting by and
2 through its Division of Drinking Water (hereinafter "Division") and the Deputy Director for
3 the Division (hereinafter "Deputy Director"), hereby issues a citation to Williams Grove
4 State Park (Williams Grove) for failure to comply with the filter effluent turbidity
5 performance standards in the Surface Water Treatment Regulations, Section 64653,
6 California Code of Regulations (CCR).

8 APPLICABLE AUTHORITIES

9 1. Section 64653 (Filtration), CCR states in relevant part:

10 (e) An alternative to the filtration technologies specified in subsection (a) may be
11 used provided that the supplier demonstrates to the State Board that the
12 alternative technology:

13 (1) Provides a minimum of 99 percent *Giardia lamblia* cyst removal, 90 percent
14 virus removal for the suppliers serving more than 500 persons, and 99
15 percent *Cryptosporidium* removal; and

16 (2) Meets the turbidity performance standards established by the State Board,
17 as determined from the alternative filtration technology demonstration
18 conducted pursuant to subsection (f). The turbidity performance standards
19 shall not be less stringent than the turbidity performance standards
20 established in subsection (c)(1).

21 2. CDHS conditional acceptance letter of the AQUA-RITE Potable Water Filtration
22 System as an alternative filtration technology.

23 A copy of additional *Applicable Authorities*, including those related to monitoring and
24 reporting, is located in Appendix 1, and a copy of "CDHS CONDITIONAL ACCEPTANCE
25 OF AQUA-RITE POTABLE WATER FILTRATION SYSTEM AS AN ALTERNATIVE
26 FILTRATION TECHNOLOGY" is located in Appendix 2, which are attached hereto and
27 incorporated by reference.

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1 22, Section 64653 and failure to properly monitor and report surface water treatment
2 data in violation of Sections 64654.8, 64655, 64656, 64662, and 64664. Appendix 3,
3 Public Notice Template, may be used to fulfill this directive. The procedures for the
4 distribution, format, and content of the Public Notice shall be in accordance with
5 Article 18, Section 64463 through Section 64465, CCR, which relevant parts are
6 included in Appendix 1, Applicable Authorities.

7
8 3. Complete Appendix 3, Certification of Public Notification, and submit the Certification
9 of Public Notification with a copy of the Public Notice that was distributed to the
10 Division on or before February 10, 2017.

11
12 4. By April 1, 2017, submit to the Division, for review and approval, a plan and
13 compliance schedule for improvements to the water system to correct the operations
14 and treatment problems.

15
16 5. By May 1, 2017, submit to the Division, for review and approval, an operations plan
17 as required by CCR, Title 22, Section 64661.

18
19 All submittals required by this citation shall be submitted to the Division of Drinking
20 Water at the following address:

21
22 Barry Sutter, P.E.
23 Klamath District Engineer
24 State Water Resources Control Board
25 Division of Division of Drinking Water
26 364 Knollcrest Drive, Suite 101
27 Redding, CA 96002

1
2 The Division reserves the right to make such modifications to this citation as it may deem
3 necessary to protect public health and safety. Such modifications may be issued as
4 amendments to this citation and shall be effective upon issuance.

5
6 Nothing in this Citation relieves Williams Grove of its obligation to meet the requirements
7 of the California Safe Drinking Water Act (CHSC, Division 104, Part 12, Chapter 4,
8 commencing with Section 116270), or any regulation, standard, permit or order issued
9 thereunder.

10
11 **PARTIES BOUND**

12 This citation shall apply to and be binding upon Williams Grove, its owners,
13 shareholders, officers, directors, agents, employees, contractors, successors, and
14 assignees.

15 **SEVERABILITY**

16 The Directives of this citation are severable, and Williams Grove shall comply with each
17 and every provision thereof notwithstanding the effectiveness of any provision.

18
19 **FURTHER ENFORCEMENT ACTION**

20 The California SDWA authorizes the Division to issue a citation or compliance order with
21 assessment of administrative penalties to a public water system for violation or continued
22 violation of the requirements of the California SDWA or any permit, regulation, permit or
23 order issued or adopted thereunder including, but not limited to, failure to correct a
24 violation identified in a citation or compliance order. The California SDWA also
25 authorizes the Division to take action to suspend or revoke a permit that has been issued
26 to a public water system if the system has violated applicable law or regulations or has
27 failed to comply with an order of the Division; and to petition the superior court to take

1 various enforcement measures against a public water system that has failed to comply
2 with an order of the Division. The Division does not waive any further enforcement action
3 by issuance of this citation or compliance order.

4 

5 _____
6 Barry Sutter, P.E.
7 Klamath District Engineer
8 State Water Resources Control Board
9 Drinking Water Field Operations Branch

Jan 11, 2017
Date



10 Appendices (4):

- 11 1. Applicable Authorities
- 12 2. CDHS Letter Acceptance Strainrite Bag Tech FINAL June 05
- 13 3. Public Notice Template
- 14 4. Public Notice Certification

15 Certified Mail No. 7012 3460 0003 1112 8472

APPENDIX 1:
APPLICABLE AUTHORITIES
For
**Failure To Comply With Combined Filter Effluent Turbidity Performance Standards, SWTR and
Failure to Properly Monitor and Report to the SWRCB-Division of Drinking Water**

Section 116271 of the CHSC states in relevant part:

- (a) The State Water Resources Control Board succeeds to and is vested with all of the authority, duties, powers, purposes, functions, responsibilities, and jurisdiction of the State Department of Public Health, its predecessors, and its director for purposes of all of the following:
 - (1) The Environmental Laboratory Accreditation Act (Article 3 (commencing with Section 100825) of Chapter 4 of Part 1 of Division 101).
 - (2) Article 3 (commencing with Section 106875) of Chapter 4 of Part 1.
 - (3) Article 1 (commencing with Section 115825) of Chapter 5 of Part 10.
 - (4) This chapter and the Safe Drinking Water State Revolving Fund Law of 1997 (Chapter 4.5 (commencing with Section 116760)).
 - (5) Article 2 (commencing with Section 116800), Article 3 (commencing with Section 116825), and Article 4 (commencing with Section 116875) of Chapter 5.
 - (6) Chapter 7 (commencing with Section 116975).
 - (7) The Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Division 43 (commencing with Section 75001) of the Public Resources Code).
 - (8) The Water Recycling Law (Chapter 7 (commencing with Section 13500) of Division 7 of the Water Code).
 - (9) Chapter 7.3 (commencing with Section 13560) of Division 7 of the Water Code.
 - (10) The California Safe Drinking Water Bond Law of 1976 (Chapter 10.5 (commencing with Section 13850) of Division 7 of the Water Code).
 - (11) Wholesale Regional Water System Security and Reliability Act (Division 20.5 (commencing with Section 73500) of the Water Code).
 - (12) Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002 (Division 26.5 (commencing with Section 79500) of the Water Code).
- (b) The State Water Resources Control Board shall maintain a drinking water program and carry out the duties, responsibilities, and functions described in this section. Statutory reference to "department," "state department," or "director" regarding a function transferred to the State Water Resources Control Board shall refer to the State Water Resources Control Board. This section does not impair the authority of a local health officer to enforce this chapter or a county's election not to enforce this chapter, as provided in Section 116500.
- (k)
 - (1) The State Water Resources Control Board shall appoint a deputy director who reports to the executive director to oversee the issuance and enforcement of public water system permits and other duties as appropriate. The deputy director shall have public health expertise.
 - (2) The deputy director is delegated the State Water Resources Control Board's authority to provide notice, approve notice content, approve emergency notification plans, and take other action pursuant to Article 5 (commencing with Section 116450), to issue, renew, reissue, revise, amend, or deny any public water system permits pursuant to Article 7 (commencing with Section 116525), to suspend or revoke any public water system permit pursuant to Article 8 (commencing with Section 116625), and to issue citations, assess penalties, or issue orders pursuant to Article 9 (commencing with Section 116650). Decisions and actions of the deputy director taken pursuant to Article 5 (commencing with Section 116450) or Article 7 (commencing with Section 116525) are deemed decisions and actions taken, but are not subject to reconsideration, by the State Water Resources Control Board. Decisions and actions of the deputy director taken pursuant to Article 8 (commencing with Section 116625) and Article 9 (commencing with Section 116650) are deemed decisions and actions taken by the State Water Resources Control Board, but any aggrieved person may petition the State Water Resources Control Board for reconsideration of the decision or action. This subdivision is not a limitation on the State Water Resources Control Board's authority to delegate any other powers and duties.

Section 116650 of the CHSC states in relevant part:

- (a) If the department determines that a public water system is in violation of this chapter or any regulation, permit, standard, citation, or order issued or adopted thereunder, the department may issue a citation to the public water system. The citation shall be served upon the public water system personally or by certified mail. Service shall be deemed effective as of the date of personal service or the date of receipt of the certified mail. If a person to whom a citation is directed refuses to accept delivery of the certified mail, the date of service shall be deemed to be the date of mailing.
- (b) Each citation shall be in writing and shall describe the nature of the violation or violations, including a reference to the statutory provision, standard, order, citation, permit, or regulation alleged to have been violated.
- (c) A citation may specify a date for elimination or correction of the condition constituting the violation.
- (d) A citation may include the assessment of a penalty as specified in subdivision (e).
- (e) The department may assess a penalty in an amount not to exceed one thousand dollars (\$1,000) per day for each day that a violation occurred, and for each day that a violation continues to occur. A separate penalty may be assessed for each violation.

Section 64653 of CCR (Filtration) states in relevant part:

- (a) All approved surface water utilized by a supplier shall be treated using one of the following filtration technologies unless an alternative process has been approved by the Department pursuant to subsections (e), (f), (g) and (h):
 - (1) Conventional filtration treatment;
 - (2) Direct filtration treatment;
 - (3) Diatomaceous earth filtration; or
 - (4) Slow sand filtration.
- (b) Conventional filtration treatment shall be deemed to be capable of achieving at least 99.7 percent removal of *Giardia lamblia* cysts, 99 percent removal of viruses, and 99 percent removal of *Cryptosporidium* when in compliance with operating criteria specified in section 64660 and performance standards specified in table 64653. Direct filtration treatment, diatomaceous earth filtration, and slow sand filtration shall be deemed to be capable of achieving at least 99 percent removal of *Giardia lamblia* cysts, 90 percent removal of viruses, and 99 percent removal of *Cryptosporidium* when in compliance with operating criteria specified in section 64660 and performance standards specified in table 64653.
- (c) A supplier shall comply with the combined filter effluent turbidity performance standards in table 64653 for each treatment plant while the plant is in operation:

Table 64653

Combined Filter Effluent Turbidity Performance Standards(a)

If a supplier uses...	The turbidity level of the combined filter effluent...
(1) Conventional or direct filtration treatment and serves 10,000 or more persons	(A) Shall be less than or equal to 0.3 NTU in at least 95 percent of the measurements taken each month; (B) Shall not exceed 1 NTU for more than one continuous hour; (C) Shall not exceed 1 NTU at four-hour intervals; and (D) Shall not exceed 1.0 NTU for more than eight consecutive hours.
(2) Conventional or direct filtration treatment and serves fewer than 10,000 persons	(A) Shall be less than or equal to 0.3 NTU in at least 95 percent of the measurements taken each month; (B) For a supplier using a grab sample monitoring program: 1. Shall not exceed 1 NTU; and

2. Shall not exceed 1.0 NTU in more than two consecutive samples; and
 - (C) For a supplier using a continuous monitoring program:
 1. If recording results at least once every 15 minutes, shall comply with paragraph (1)(B); and
 2. Shall comply with paragraphs (1)(C) and (1)(D).
- (3) Diatomaceous earth filtration
- (A) Shall be less than or equal to 0.5 NTU in at least 95 percent of the measurements taken each month;
 - (B) Shall not exceed 5.0 NTU;
 - (C) For a supplier using a grab sample monitoring program, shall comply with paragraph (2)(B)2; and
 - (D) For a supplier using a continuous monitoring program, shall comply with paragraph (1)(D).
- (4) Slow sand filtration
- (A) Shall be less than or equal to 1.0 NTU in at least 95 percent of the measurements taken each month. Filtered water from the treatment plant may exceed 1.0 NTU, provided the filter effluent prior to disinfection meets the maximum contaminant level for total coliforms as specified in 22 CCR section 64426.1; and
 - (B) Shall not exceed 5.0 NTU.
- (a) If there is only one filter at the treatment plant, the combined filter effluent turbidity performance standards shall apply to the effluent produced by the filter.

Section 64654.8 of CCR (Source, Raw, Settled, and Recycled Filter Backwash Monitoring) states in relevant part:

- (a) A supplier shall comply with the source monitoring requirements specified in section 64650(f).
- (b) Pursuant to the operations plan required by section 64661, a supplier shall:
 - (1) Monitor the raw water supply for:
 - (A) Turbidity at least once a day; and
 - (B) Total coliform and either fecal coliform or *E. coli* bacteria using density analysis at least once a month;
 - (2) If using conventional filtration treatment, monitor the turbidity of the settled water at least once a day; and
 - (3) If recycling filter backwash water, monitor the turbidity and determine the flow of the recycled water at least once a day or once during each recycle event. Monitoring shall be representative of the recycled water.

Section 64655 of CCR (Filtration Monitoring) states in relevant part:

- (a) To determine compliance with the performance standards specified in section 64653 and the operating criteria in section 64660, a supplier shall conduct turbidity monitoring in accordance with table 64655. Monitoring shall be conducted when the treatment plant is in operation and pursuant to the operations plan required by section 64661.

Table 64655 Filtered Water Turbidity Monitoring

<i>If a supplier uses...</i>	<i>Turbidity monitoring shall be conducted of...</i>	<i>And the turbidity level shall be recorded...</i>
(1) Conventional or direct filtration treatment and serves 10,000 or more persons	(A) Each individual filter, continuously; and	At least once every 15 minutes
	(B) The combined filter effluent ^(b) , continuously	At least once every 15 minutes

(2) Conventional or direct filtration treatment and serves fewer than 10,000 persons ^(a)	(A) Each individual filter, continuously ^(c) ; and	At least once every 15 minutes
	(B) The combined filter effluent ^(b) , by grab sample at least once every four hours ^(d)	At least once every four hours
(3) Diatomaceous earth or slow sand filtration ^(a)	The combined filter effluent ^(b) , by grab sample at least once every four hours ^(d)	At least once every four hours

- (a) A supplier using slow sand filtration, or serving 500 or fewer persons, that is in compliance with the performance standards specified in section 64653 may reduce turbidity monitoring of the combined filter effluent to one grab sample per day. The result shall be recorded daily.
- (b) Representative sample prior to clearwell storage.
- (c) If there are two or fewer filters, a supplier may conduct continuous monitoring of the combined filter effluent in lieu of continuous monitoring of each individual filter. The results shall be recorded at least once every 15 minutes.
- (d) Continuous turbidity measurements may be substituted for grab sample monitoring provided the supplier validates the accuracy of the measurements on a weekly basis.

(b) A supplier shall calibrate turbidimeters used for continuous turbidity monitoring according to the procedure specified by the manufacturer.

(c) If there is an interruption in continuous turbidity monitoring due to equipment failure or maintenance, a supplier that uses conventional or direct filtration treatment shall conduct grab sample monitoring once every four hours in lieu of continuous monitoring until the continuous turbidimeter is back on-line. From the time of equipment failure or maintenance interruption, continuous monitoring shall be reinitiated:

- (1) For a supplier serving 10,000 or more persons, within 48 hours for the combined filter effluent and within five working days for the individual filter effluent; or
- (2) For a supplier serving fewer than 10,000 persons, within 14 working days for the individual filter effluent.

Section 64656 of CCR (Disinfection Monitoring) states in relevant part:

- (a) To determine compliance with disinfection inactivation requirements specified in section 64654(a), a supplier shall develop and conduct a monitoring program to measure those parameters that affect the performance of the disinfection process. This shall include but not be limited to the temperature of the disinfected water, the pH(s) of the disinfected water if chlorine is used as a disinfectant, the disinfectant contact time(s) and the residual disinfectant concentration(s) before or at the first customer. The monitoring program shall be described in the operations plan required by section 64661.
- (b) To determine compliance with the performance standard specified in section 64654(b)(1), the disinfectant residual concentration of the water being delivered to the distribution system shall be measured and recorded continuously except as provided in subsection (f).
- (c) To determine compliance with section 64654(b)(2), the residual disinfectant concentration shall, at a minimum, be measured at the same points in the distribution system and at the same time as total coliforms are sampled in accordance with 22 CCR section 64421, and described in the operations plan required by section 64661, except as provided in subsection (d).
- (d) A supplier that uses both an approved surface water and a groundwater may take disinfectant residual samples at points other than those specified in subsection (c) provided the supplier demonstrates to the State Board that such sampling points are representative of the disinfected approved surface water in the distribution system.

- (e) If there is a failure of continuous disinfectant residual monitoring equipment, grab sampling every four hours may be conducted in lieu of continuous monitoring, but for no more than five working days following the failure of the equipment.
- (f) A supplier serving 3,300 or fewer persons may collect and analyze grab samples of disinfectant residual each day as shown below in lieu of the continuous monitoring specified in subsection (b), provided that any time the residual disinfectant falls below 0.2 mg/L, the supplier shall take a grab sample every four hours until the residual concentration is equal to or greater than 0.2 mg/L:

<i>System size by population</i>	<i>Samples/day</i>
less than or equal to 500	1
501 - 1,000	2
1,001 - 2,500	3
2,501 - 3,300	4

- (g) A supplier shall describe the location and frequency of sampling to comply with subsection (f) in the operations plan required by section 64661.

(a) A supplier shall maintain accurate and complete operation records for each treatment plant that treats an approved surface water. The records shall include but not be limited to the following:

- (1) The results of all monitoring conducted in accordance with sections 64654.8, 64655, 64656, 64656.5, and 64660;
- (2) Dates on which filter maintenance and inspections were performed and the results of any inspections including pressure filter evaluations required by section 64660(b)(8);
- (3) Quantity of water produced, plant flow rates, filtration rates, hours of operation, and backwash rates; and
- (4) Dates and description of major equipment and process failures and corrective actions taken.

(b) Treatment plant records shall be retained for not less than three years, except where the State Board has determined that longer retention times are necessary to complete legal actions taken under the provisions of Health and Safety Code sections 116625 through 116675 and sections 116725 through 116730.

(c) A supplier using conventional or direct filtration treatment and serving fewer than 10,000 persons shall retain treatment plant records required pursuant to section 64656.5 indefinitely.

(d) A supplier shall comply with the recordkeeping requirements specified in section 64650(f)(1).

Section 64662 of CCR (Records) states in relevant part:

- (a) A supplier shall maintain accurate and complete operation records for each treatment plant that treats an approved surface water. The records shall include but not be limited to the following:
- (1) The results of all monitoring conducted in accordance with sections 64654.8, 64655, 64656, 64656.5, and 64660;
 - (2) Dates on which filter maintenance and inspections were performed and the results of any inspections including pressure filter evaluations required by section 64660(b)(8);
 - (3) Quantity of water produced, plant flow rates, filtration rates, hours of operation, and backwash rates; and
 - (4) Dates and description of major equipment and process failures and corrective actions taken.
- (b) Treatment plant records shall be retained for not less than three years, except where the State Board has determined that longer retention times are necessary to complete legal actions taken under the provisions of Health and Safety Code sections 116625 through 116675 and sections 116725 through 116730.

- (c) A supplier using conventional or direct filtration treatment and serving fewer than 10,000 persons shall retain treatment plant records required pursuant to section 64656.5 indefinitely.
- (d) A supplier shall comply with the recordkeeping requirements specified in section 64650(f)(1).

Section 64664 of CCR (Monthly Report) states in relevant part:

(a) For each calendar month, a supplier shall submit a report to the State Board by the tenth day of the following month that includes the applicable information in this section for each treatment plant. The report shall be signed by the chief water treatment plant operator, plant superintendent, or other person directly responsible for the operation of the water treatment plant.

(b) The report shall include the following filtration monitoring results, obtained pursuant to section 64655, and related information:

**Table 64664-A
Combined Filter Effluent Data for Monthly Report**

<i>If a supplier uses...</i>	<i>The supplier shall report...</i>
(1) Conventional or direct filtration treatment and serves 10,000 or more persons ^(a)	The total number of turbidity measurements and either: (A) The turbidity achieved 50, 90, 95, 98, and 99 percent of the time that the plant was producing water; and the date, time, and value of any turbidity measurements that exceed 1.0 NTU; or (B) The results of turbidity measurements recorded at intervals no greater than every four hours; all results that exceed 0.3 NTU, recorded at intervals no greater than every 15 minutes; and the number and percent of turbidity measurements that are less than or equal to 0.3 NTU, based on measurements recorded at intervals no greater than every 15 minutes.
(2) Conventional or direct filtration treatment and serves fewer than 10,000 persons ^(b) , diatomaceous earth filtration, slow sand filtration ^(c) , or an alternative filtration technology	(A) The total number of turbidity measurements; (B) The results of turbidity measurements; (C) The number and percent of turbidity measurements taken that are less than or equal to the performance standard specified for each filtration technology in section 64653 or as required for an alternative treatment process; (D) The date, time, and value of any turbidity measurements that exceed performance levels specified in section 64653 or as required for an alternative treatment process; and (E) The average daily turbidity level.

(a) A supplier shall review the data reported to ensure that it is not compromised by system or instrument maintenance, hardware or software problems, signal transmission problems, or for other technical reasons.

(b) A supplier monitoring pursuant to footnote (c) of table 64655 may report pursuant to paragraph (1)(A) in lieu of

paragraphs (2)(B) through (2)(E).

(c) If the turbidity of the combined filter effluent is greater than 1.0 NTU in five percent or more of the measurements, a supplier shall also report the dates and results of total coliform sampling of the combined filter effluent prior to disinfection to demonstrate compliance with paragraph (4)(A) of table 64653.

Table 64664-B
Individual Filter Data for Monthly Report

<i>If a supplier uses...</i>	<i>The supplier shall include...</i>
(1) Conventional or direct filtration treatment and serves 10,000 or more persons	(A) Certification that individual filter turbidity monitoring was conducted pursuant to section 64655; (B) For an exceedance of section 64660(b)(7)(A), (b)(7)(B), or (b)(7)(C), a written explanation of the cause of the exceedance; (C) For an exceedance of section 64660(b)(7)(D) or (b)(7)(E), the filter number, turbidity measurements, and date(s) and time(s) of the exceedance(s); and either: 1. The obvious reason for the exceedance; or 2. If the supplier is not able to identify an obvious reason for the abnormal filter performance, the filter profile produced pursuant to table 64660; and (D) For an exceedance of section 64660(b)(7)(F), certification that a self-assessment was conducted pursuant to table 64660.
(2) Conventional or direct filtration treatment and serves fewer than 10,000 persons	(A) The information in paragraphs (1)(A) and (1)(B); (B) For an exceedance of section 64660(b)(7)(D) or (b)(7)(E), the filter number, turbidity measurements, date(s) and time(s) of the exceedance(s); and, if known, the obvious reason for the exceedance. (C) For an exceedance of section 64660(b)(7)(F), the date the self-assessment was triggered and completed. If the self-assessment was triggered during the last four days of the month, the supplier may report to the State Board by the 14 th of the following month the date the self-assessment was triggered and completed; and (D) For an exceedance of section 64660(b)(7)(G), certification that the CPE is required and the date it was triggered.

(c) The report shall include the following disinfection monitoring results obtained pursuant to section 64656:

(1) The date and duration of each instance when the disinfectant residual in water supplied to the distribution system is less than 0.2 mg/L and when the State Board was notified of the occurrence;

(2) The following information on samples taken from the distribution system to comply with section 64654(b)(2):

(A) The number of samples where the disinfectant residual is measured;

(B) The number of samples where only the heterotrophic plate count (HPC) is measured;

(C) The number of measurements with no detectable disinfectant residual and no HPC is measured;

(D) The number of measurements with no detectable disinfectant residual and HPC is greater than 500 colony forming units per milliliter;

(E) The number of measurements where only HPC is measured and is greater than 500 colony forming units per milliliter; and

(F) The value of V in the following formula:

$$V = \left[1 - \frac{(C + D + E)}{A + B} \right] \times 100$$

Where:

V = the percent of distribution system samples with a detectable residual;

A = the value in paragraph (2)(A) of this subsection;

B = the value in paragraph (2)(B) of this subsection;

C = the value in paragraph (2)(C) of this subsection;

D = the value in paragraph (2)(D) of this subsection; and

E = the value in paragraph (2)(E) of this subsection; and

(3) For each day the lowest measurement of residual disinfectant concentration in mg/L in the water entering the distribution system.

(d) The report shall include the following raw, settled, and recycled filter backwash monitoring results obtained pursuant to section 64654.8:

(1) All raw water turbidity measurements taken during the month. If more than one sample is taken each day, the highest value of all samples taken that day may be reported in lieu of reporting all that day's values;

(2) All raw water coliform measurements taken during the month;

(3) Daily settled water turbidity for each day of the month. If more than one sample is taken each day, the highest value of all samples taken that day may be reported in lieu of reporting all that day's values; and

(4) Daily recycled water turbidity and flow for each day of the month that backwash water was recycled back into the treatment process. If more than one turbidity sample (or flow measurement) is taken each day, the highest value of all turbidity samples (or flow measurements) taken that day may be reported in lieu of reporting all that day's values.

(e) The report shall include a written explanation of the cause of any violation of performance standards specified in sections 64653 or 64654 and operating criteria specified in section 64660(b)(9).

(f) The report shall include a summary of water quality complaints and reports of gastrointestinal illness received from consumers.

(g) The report shall include the monthly reporting specified in section 64650(f)(1).

Section 64463.4 of CCR (Tier 2 Public Notice) states in relevant part:

(a) A water system shall give public notice pursuant to this section if any of the following occurs:

(1) Any violation of the MCL, MRDL, and treatment technique requirements, except:

- (A) Where a Tier 1 public notice is required under section 64463.1; or
 - (B) Where the Department determines that a Tier 1 public notice is required, based on potential health impacts and persistence of the violations;
 - (2) All violations of the monitoring and testing procedure requirements in sections 64421 through 64426.1, article 3 (Primary Standards – Bacteriological Quality), for which the Department determines that a Tier 2 rather than a Tier 3 public notice is required, based on potential health impacts and persistence of the violations;
 - (3) Other violations of the monitoring and testing procedure requirements in this chapter, and chapters 15.5, 17 and 17.5, for which the Department determines that a Tier 2 rather than a Tier 3 public notice is required, based on potential health impacts and persistence of the violations; or
 - (4) Failure to comply with the terms and conditions of any variance or exemption in place.
- (b) A water system shall give the notice as soon as possible within 30 days after it learns of a violation or occurrence specified in subsection (a), except that the water system may request an extension of up to 60 days for providing the notice. This extension would be subject to the Department's written approval based on the violation or occurrence having been resolved and the Department's determination that public health and welfare would in no way be adversely affected. In addition, the water system shall:
- (1) Maintain posted notices in place for as long as the violation or occurrence continues, but in no case less than seven days;
 - (2) Repeat the notice every three months as long as the violation or occurrence continues. Subject to the Department's written approval based on its determination that public health would in no way be adversely affected, the water system may be allowed to notice less frequently but in no case less than once per year. No allowance for reduced frequency of notice shall be given in the case of a total coliform MCL violation or violation of a Chapter 17 treatment technique requirement; and
 - (3) For turbidity violations pursuant to sections 64652.5(c)(2) and 64653(c), (d) and (f), as applicable, a water system shall consult with the Department as soon as possible within 24 hours after the water system learns of the violation to determine whether a Tier 1 public notice is required. If consultation does not take place within 24 hours, the water system shall give Tier 1 public notice within 48 hours after learning of the violation.
- (c) A water system shall deliver the notice, in a manner designed to reach persons served, within the required time period as follows:
- (1) Unless otherwise directed by the Department in writing based on its assessment of the violation or occurrence and the potential for adverse effects on public health and welfare, community water systems shall give public notice by:
 - (A) Mail or direct delivery to each customer receiving a bill including those that provide their drinking water to others (e.g., schools or school systems, apartment building owners, or large private employers), and other service connections to which water is delivered by the water system; and
 - (B) Use of one or more of the following methods to reach persons not likely to be reached by a mailing or direct delivery (renters, university students, nursing home patients, prison inmates, etc.):
 - 1. Publication in a local newspaper;
 - 2. Posting in conspicuous public places served by the water system, or on the Internet; or
 - 3. Delivery to community organizations.
 - (2) Unless otherwise directed by the Department in writing based on its assessment of the violation or occurrence and the potential for adverse effects on public health and welfare, noncommunity water systems shall give the public notice by:
 - (A) Posting in conspicuous locations throughout the area served by the water system; and
 - (B) Using one or more of the following methods to reach persons not likely to be reached by a public posting:
 - 1. Publication in a local newspaper or newsletter distributed to customers;
 - 2. E-mail message to employees or students;
 - 3. Posting on the Internet or intranet; or
 - 4. Direct delivery to each customer.

Section 64465 of CCR (Public Notice Content and Format) states in relevant part:

(a) Each public notice given pursuant to this article, except Tier 3 public notices for variances and exemptions pursuant to subsection (b), shall contain the following:

- (1) A description of the violation or occurrence, including the contaminant(s) of concern, and (as applicable) the contaminant level(s);
- (2) The date(s) of the violation or occurrence;
- (3) Any potential adverse health effects from the violation or occurrence, including the appropriate standard health effects language from appendices 64465-A through G;
- (4) The population at risk, including subpopulations particularly vulnerable if exposed to the contaminant in drinking water;
- (5) Whether alternative water supplies should be used;
- (6) What actions consumers should take, including when they should seek medical help, if known;
- (7) What the water system is doing to correct the violation or occurrence;
- (8) When the water system expects to return to compliance or resolve the occurrence;
- (9) The name, business address, and phone number of the water system owner, operator, or designee of the water system as a source of additional information concerning the public notice;
- (10) A statement to encourage the public notice recipient to distribute the public notice to other persons served, using the following standard language: "Please share this information with all the other people who drink this water, especially those who may not have received this public notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this public notice in a public place or distributing copies by hand or mail."; and
- (11) For a water system with a monitoring and testing procedure violation, this language shall be included: "We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During [*compliance period dates*], we [*did not monitor or test*' or '*did not complete all monitoring or testing*'] for [*contaminant(s)*], and therefore, cannot be sure of the quality of your drinking water during that time."

(b) A Tier 3 public notice for a water system operating under a variance or exemption shall include the elements in this subsection. If a water system has violated its variance or exemption conditions, the public notice shall also include the elements in subsection (a).

- (1) An explanation of the reasons for the variance or exemption;
- (2) The date on which the variance or exemption was issued;
- (3) A brief status report on the steps the water system is taking to install treatment, find alternative sources of water, or otherwise comply with the terms and schedules of the variance or exemption; and
- (4) A notice of any opportunity for public input in the review of the variance or exemption.

(c) A public water system providing notice pursuant to this article shall comply with the following multilingual-related requirements:

- (1) For a Tier 1 public notice:
 - (A) The notice shall be provided in English, Spanish, and the language spoken by any non-English-speaking group exceeding 10 percent of the persons served by the public water system, and the notice shall include a telephone number or address where such individuals may contact the public water system for assistance; and
 - (B) If any non-English-speaking group exceeds 1,000 persons served by the public water system, but does not exceed 10 percent served, the notice shall include information in the appropriate language(s) regarding the importance of the notice, and the telephone number or address where such individuals may contact the public water system to obtain a translated copy of the notice from the public water system or assistance in the appropriate language;
- (2) For a Tier 2 or Tier 3 public notice:
 - (A) The notice shall contain information in Spanish regarding the importance of the notice, or contain a telephone number or address where Spanish-speaking residents may contact the public water system to obtain a translated copy of the notice or assistance in Spanish; and

(B) When a non-English speaking group other than Spanish-speaking exceeds 1,000 residents or 10 percent of the residents served by the public water system, the notice shall include:

1. Information in the appropriate language(s) regarding the importance of the notice; or
2. A telephone number or address where such residents may contact the public water system to obtain a translated copy of the notice or assistance in the appropriate language; and

(3) For a public water system subject to the Dymally-Alatorre Bilingual Services Act, Chapter 17.5, Division 7, of the Government Code (commencing with section 7290), meeting the requirements of this Article may not ensure compliance with the Dymally-Alatorre Bilingual Services Act.

(d) Each public notice given pursuant to this article shall:

- (1) Be displayed such that it catches people's attention when printed or posted and be formatted in such a way that the message in the public notice can be understood at the eighth-grade level;
- (2) Not contain technical language beyond an eighth-grade level or print smaller than 12 point; and
- (3) Not contain language that minimizes or contradicts the information being given in the public notice.

Section 64469 of CCR (Reporting Requirements) states in relevant part:

(d) Within 10 days of giving initial or repeat public notice pursuant to Article 18 of this Chapter, except for notice given under 64463.7(d), each water system shall submit a certification to the Department that it has done so, along with a representative copy of each type of public notice given.



Appendix 2
State of California—Health and Human Services Agency
Department of Health Services



SANDRA SHEWRY
Director

ARNOLD SCHWARZENEGGER
Governor

June 9, 2005

Mr. Dan Mosley
Senior Sales & Technical Manager
Manager Potable Water Products Division
The Strainrite Companies, Inc.
65 First Flight Dr
Auburn, ME 04211-1970

Dear Mr. Mosley:

**CDHS CONDITIONAL ACCEPTANCE OF AQUA-RITE POTABLE WATER
FILTRATION SYSTEM AS AN ALTERNATIVE FILTRATION TECHNOLOGY**

Based on the results of testing conducted by BioVir Laboratories and reported in "Particle Reduction Study for Strainrite's "AQUA-RITE" Potable Water Filtration System," (no publication date; signed April 2005) the Water Treatment Committee (WTC) of the California Department of Health Services' Drinking Water Program, will accept the use of the Strainrite Companies' AQUA-RITE Potable Water Filtration System as an alternative filtration technology to meet the physical removal requirements of the current California Surface Water Treatment Rule (SWTR).

The AQUA-RITE Potable Water Filtration System is accepted as an alternative SWTR filtration technology under California Code of Regulations, Title 22, Division 4, Environmental Health Chapter 17, Article 2, Section 64653(f) as configured in the BioVir report cited above with the HPM99-CC-2-SR prefilter in front of the HPM 99-CC-35-2-SR final filter (which according to your last e-mail will be manufactured, sold, and distributed as the HPM99-CCX-2-SR). Although not documented in the BioVir report, we understand the AQ2-2 vessel equipped with a "seal Rite" bag flange is a required component of this system and is used as the housing for the prefilter and final filter. We also understand that these filters have not been tested in other Strainrite housing and that it would be inappropriate to use these filters in housings other than the AQ2-2.

Review and approval for the proposed design of any water treatment system proposing to use your technology will be handled on a case-by-case basis by the Drinking Water Program's individual District offices or local primacy agencies. Since the Drinking Water Program's District Engineers are responsible for evaluating the source water quality to

be treated and issuing an operating permit, they will set the overall removal and inactivation requirements for a given installation. Design engineers proposing to use your alternative filtration technology should be aware that the minimum log removal requirements established by the SWTR are to be met using multiple treatment barriers. Your technology is recognized as being one component of this multiple barrier. Approval for the use of your technology in any drinking water application is granted through the domestic water supply permitting process.

The AQUA-RITE Potable Water Filtration System is granted the removal credits shown in Table 1, and is subject to the operating parameters identified in Table 2. As the unit was not challenged to demonstrate virus removal, the units receive no log virus removal credit (0-log) and are subject to the limitations outlined in California Code of Regulations, Title 22, Division 4, Environmental Health Chapter 17, Article 2, Section 64653(f and g).

Table 1 – Filter Removal Credit	
Target Organism	Removal Credit (log₁₀)
Giardia	3.0
Cryptosporidium	3.0
Virus	0.0

Table 2 – System Operating Parameters	
Parameter	Value
Maximum Flowrate into system	20 gpm
Max Differential Pressure (as measured across the prefilter and final filter)	25 psid
Turbidity Performance Standards	0.1 NTU 95% of the time Not to exceed 0.5 NTU

Additional Design Criteria	<ol style="list-style-type: none">1. Pressure relief to protect bag from an excessive pressure surge.2. Filter to waste for 2 minutes after bag installation.3. Means to measure the pressure drop across each filter.
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Since the alternative filtration technology testing focused on pathogen removal (via a surrogate), only the pressure differential across the system was measured. Since the maximum pressure differential across the system (as measured across the prefilter and the final filter) is set as a condition of operation, we request specific guidance (e.g., pressure differential or other information) that the operators can use to indicate the final filter requires replacement. For example, your guidance should include, but not be limited to end of life or failure (partial or catastrophic). We are trying to avoid a situation in which an operator continually replaces the prefilter only because the final filter is not functioning properly. Similar guidance is requested for the prefilter.

Experience has led us to believe that bag filter systems may not be appropriate for water sources that contain high concentrations of submicron-sized particles ($<2\ \mu\text{m}$). Before installing a new bag filter system, the source water should be evaluated to determine whether or not submicron-sized particles are present in concentrations that would prevent the bag filter from meeting the 0.1 NTU turbidity standard. Such an evaluation can be completed using either a pilot plant or a $2\text{-}\mu\text{m}$ paper/glass fiber filter in a laboratory setting. If the pilot plant or $2\text{-}\mu\text{m}$ lab filter does not reduce turbidity to less than 0.1 NTU the source may not be amenable to filtration using a bag filter.

Any changes made to any feature, part, or product used on the AQUA-RITE Potable Water Filtration System should be reported (in writing) to the Department in advance of making the changes to any production version of your system sold in California. The detail of your written notification will be reviewed to determine if additional performance testing will be required. Consequently the letter and its appendices should provide sufficient detail to satisfy the reviewing body. Should additional testing be required, the WTC will review all future study protocols. The WTC must approve all study protocols as a condition of accepting the final report. The WTC will also review the final report and, if appropriate, make testing and permit provision recommendations regarding any future changes.

It is our understanding that all the primary components (HPM99-CC-2-SR prefilter HPM99-CCX-2-SR final filter) are to be used once and then discarded (no backwashing; no chemical clean in place). We further understand that the components of the AQUA-RITE Potable Water Filtration System are undergoing NSF Standard 61 certification (drinking water components) and that the results will be released to this regulatory body as soon as they become available. In addition, we understand that no other treatment chemicals or additives will be used to enhance or modify the performance of these units at this time. Should this change, please contact us so we can provide you with guidance regarding the regulatory requirements that cover the use of NSF (or equivalent) certified chemicals.

We would appreciate guidance on steps our field engineers can take to track the HPM99-CC-2-SR prefilter and HPM99-CCX-2-SR final filter to ensure the products are not being reused in the systems.

As we have received a number of inquiries regarding your system, we would be willing to provide any contact information to utilities that you would be willing to provide. If other contacts, such as a local representative, are available, could you provide us with their contact information at your convenience (our listing of alternative filtration technologies is updated periodically, but not on any regular schedule).

Should you have any questions regarding the content of this letter, please feel free to contact me at (510) 849-5050.

Very truly yours,

Original signed by

Richard H. Sakaji, PhD, PE
Senior Sanitary Engineer

cc: WT Committee
chron

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Este informe contiene información muy importante sobre su agua potable.

Tradúzcalo o hable con alguien que lo entienda bien.

**Williams Grove State Park Public Water System
Did Not Meet the Water Treatment Requirements (Specifically Turbidity)**

Our water system violated a drinking water standard. Although these incidents were not an emergency, as our customers, you have a right to know what happened and what we are doing to correct this situation.

We routinely monitor your water for turbidity (cloudiness). This tells us whether we are effectively filtering the water supply. Water samples in May 2016, June 2016, July 2016, and August 2016 showed that 100% of the turbidity measurements were over the 0.1 turbidity units standard required by the regulations. The standard is that no more than 5 percent of samples each month may exceed the 0.1 turbidity units standard.

What should you do?

You do not need to boil your water or take other corrective actions. We do not know of any contamination, and none of our bacteriological testing has shown disease-causing organisms in the drinking water.

Turbidity has no health effects. However, high levels of turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. These symptoms are not caused only by organisms in drinking water. If you experience any of these symptoms and they persist, you may want to seek medical advice.

People with severely compromised immune systems, infants, and some elderly may be at increased risk. These people should seek advice about drinking water from their health care providers. General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1 (800) 426-4791.

If you have other health issues concerning the consumption of this water, you may wish to consult your doctor.

What Happened? What Was Done? What will be Done?

To be completed by water system representative:

For more information, please contact _____ of the Williams Grove State Park public water system at _____.

Please share this information with other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

Upon receipt of this notice from a public water system the following establishments must provide secondary notification by distributing this notice within ten days as follows: Schools must notify school employees, students, and parents (if the students are minors). Residential rental property owners or managers (including nursing home and care facilities) must notify tenants. Business property owners, managers, or operators must notify employees of businesses located on the property. [Health and Safety Code Section 116450(g)]

State Water System ID#: 1210315

Date distributed: _____

Appendix 4
Certification of Public Notification

This form when completed and returned to the SWRCB Division of Drinking Water (364 Knollcrest Drive, Suite 101, Redding, CA 96002 or fax to 530-224-4844), serves as certification that public notification to water users was completed as required by Title 22, California Code of Regulations, Sections 64463 – 64465.

Public Water System Name Williams Grove State Park

Public Water System No. 1210315

Public notification for the May 2016, June 2016, July 2016, and August 2016 failures to meet the filter effluent turbidity performance standards was performed by the following method(s) (check and complete those that apply):

☐ The notice was posted in the following conspicuous places:
A copy of the notice is attached.

Provide the date (or dates) that the notice was posted _____

☐ The notice was published in a local newspaper or newsletter on _____
A copy of the newspaper or newsletter notice is attached.

☐ The notice was e-mailed to employees or students on _____
A copy of the notice is attached.

☐ The notice was posted on the Internet or intranet on _____
A copy of the notice is attached.

☐ The notice was directly delivered to each customer on _____
A copy of the notice is attached.

I hereby certify that the above information is factual.

Printed Name

Signature

Date